MISSOURI BOTANICAL GARDEN

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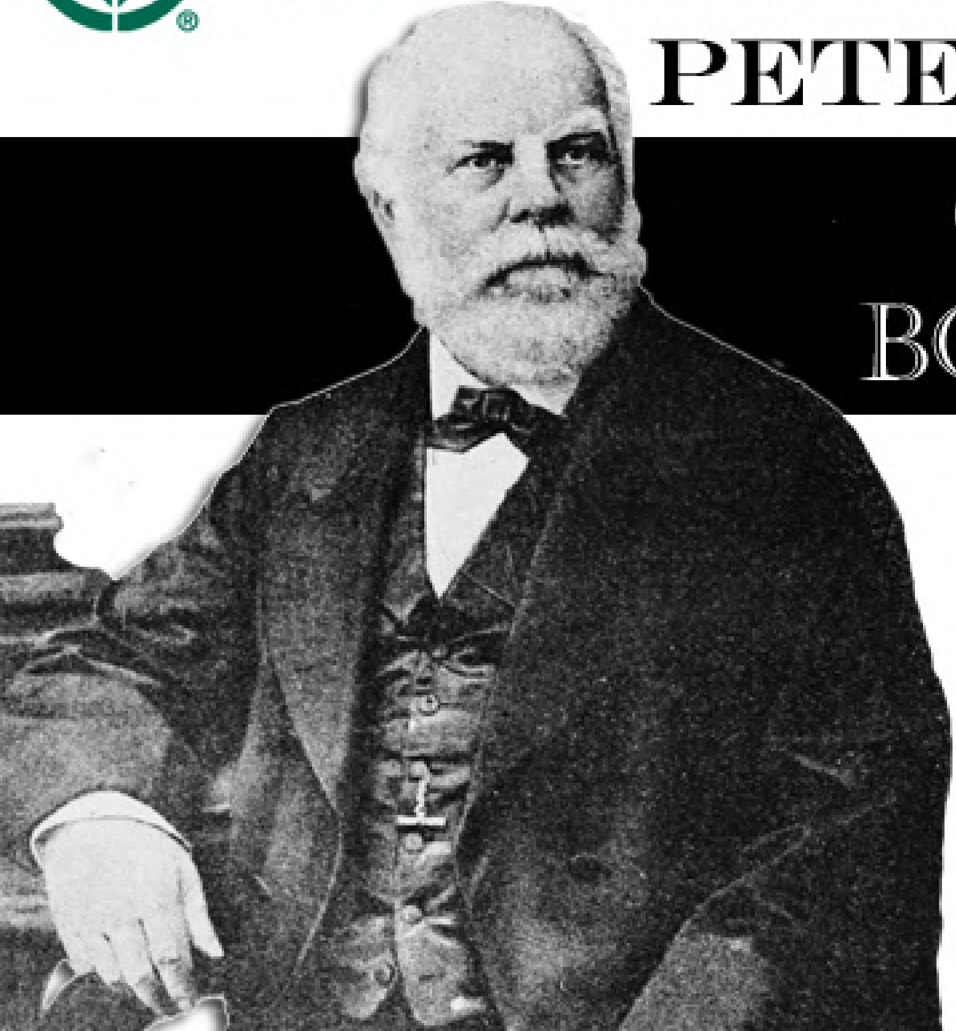

GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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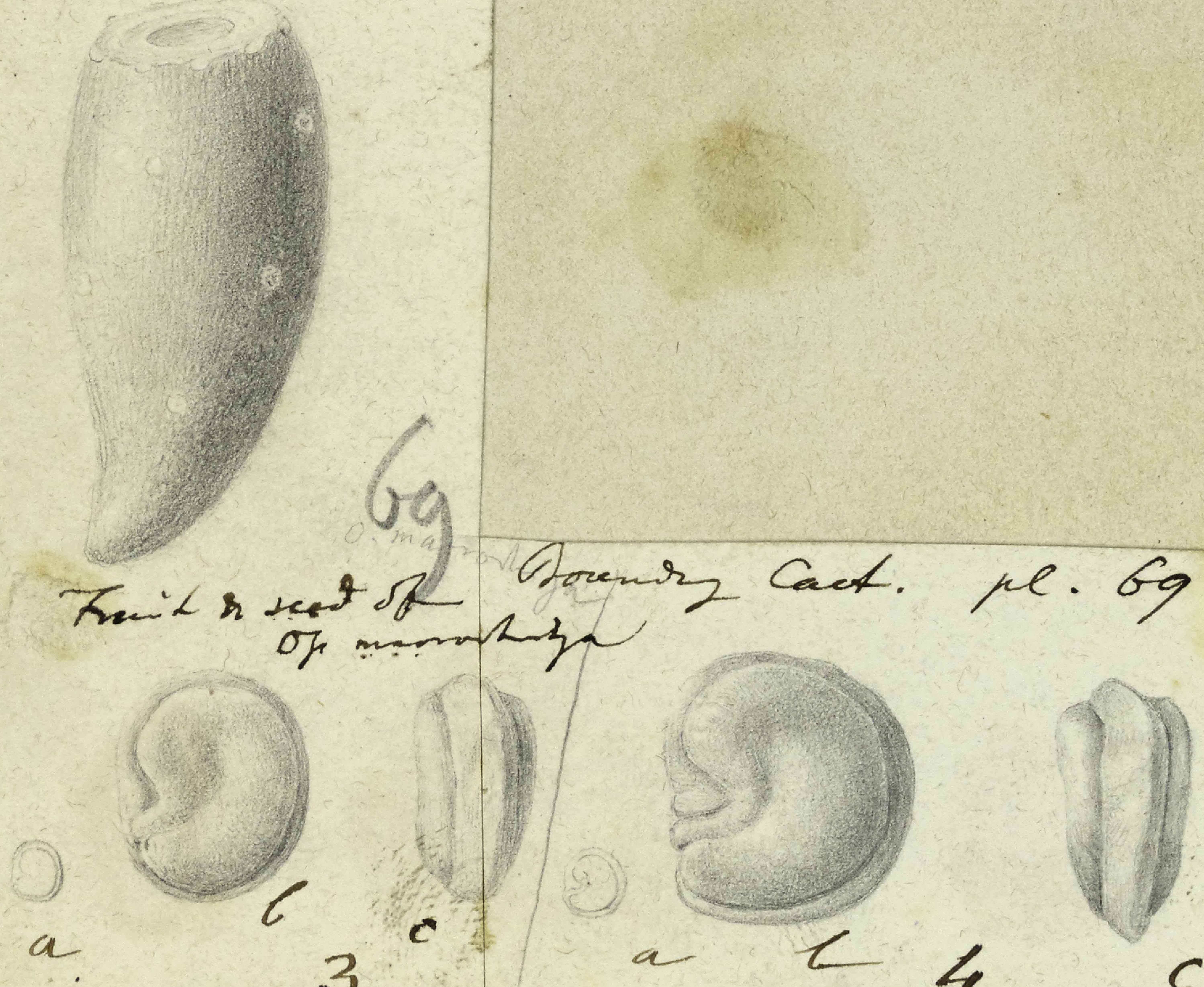
69



Fruit & seed of
Op macrorhiza

O. macrorhiza

Boundary Cact. pl. 69

grosses Papier

3000

0 1 2 3 4 5 6 7 8 9 10
cm
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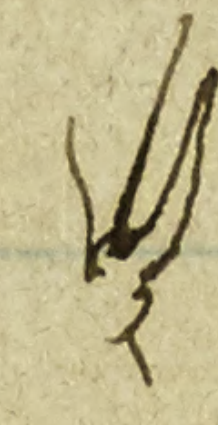
MISSOURI
BOTANICAL
GARDEN

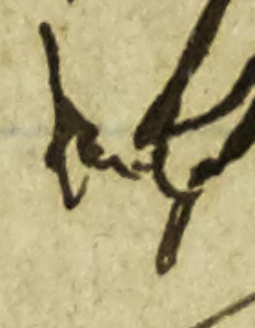
Sept 1867

Opuntia

Hort Bot Missouri sub nom: „O. spinulifera?" has long and slender leaves, about 2–2¼ l. long only ½ l. thick, reddish brown, 

Opuntia

Hort Bot Missouri sub nom „near O. spinulifera"

Erecta 2–3½' alta; caulis infra teres; articuli ovati 10–11 poll longi, 5–7" lati glaucescentes; areolae subremotae ovatae parvae setas breviusculas stramineas penicillatas gerentes; folia parva crassiuscula lineam  longa; aculei setiformes 1–3 albidi

Leaves ~~of~~ same as in O. oligacantha, ~~but~~ plant rather more glaucous and joints much more elongated.

3001

Sept 1861

Opuntia decumana Haw. Pfeiff. 152 Amer. merid.

Hort bot Hudson. sub. nom. „58. O. decumana"

Aculeis in articulis novellis junioribus vel jam foliiferis 1-2 albis setaceis 1-3 lin longis mox deciduis.

„Articuli 1-1½ ped long. 8-10 poll lat, acul decid. longitudine lanuginis" Pfeiff. 152.

June 1865 Stem about 8-9 feet high; largest joints 22 inches long.

3002

Op. decumana #63 III.

2 1/2 span long 1/4 span lg

mostly 1 1/2 sp. — 9/4 sp.

1 sp. 1 l. lg wide

in old joints

often 3 l. lg

1–4

black

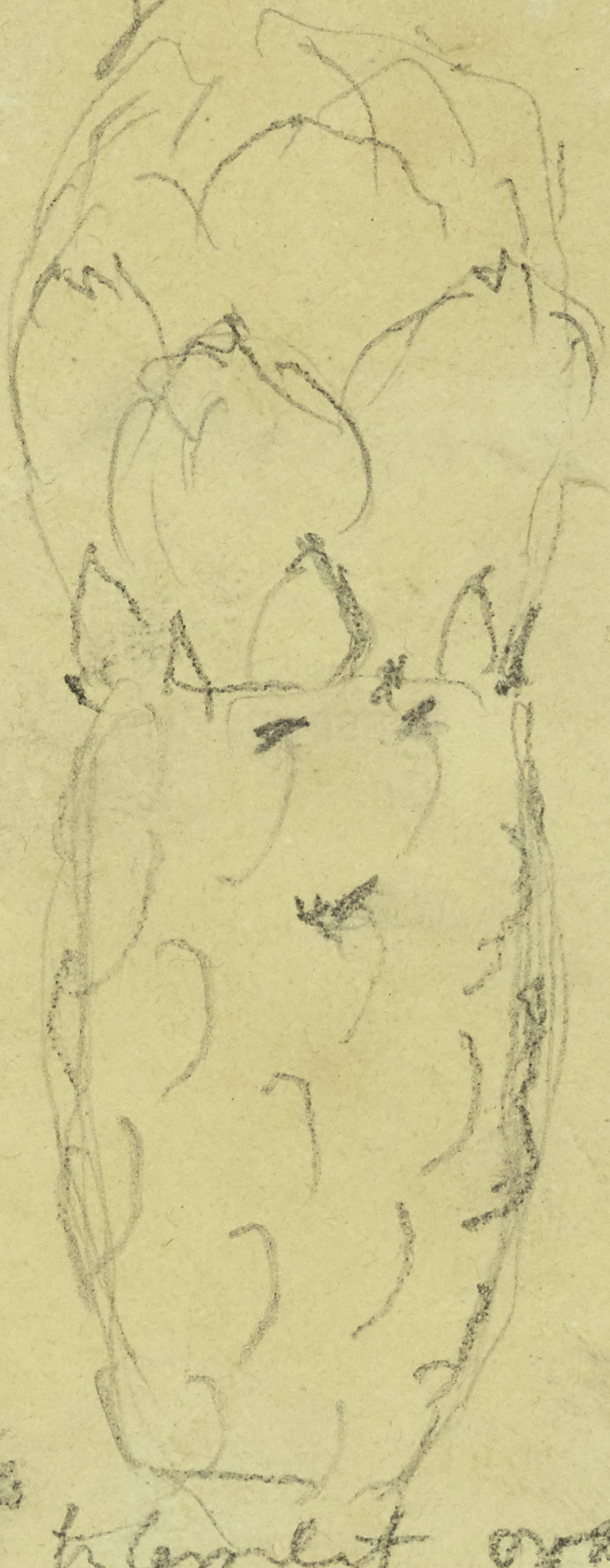
short sepals

lg yellow

bristly

58 drawn

8 feet high



about tuberculate ovary

3003

Leitch & Corlies
DRUGGISTS
South West
Corner Fifth
and Market
Streets.

0 1 2 3 4 5 6 7 8 9 10
cm
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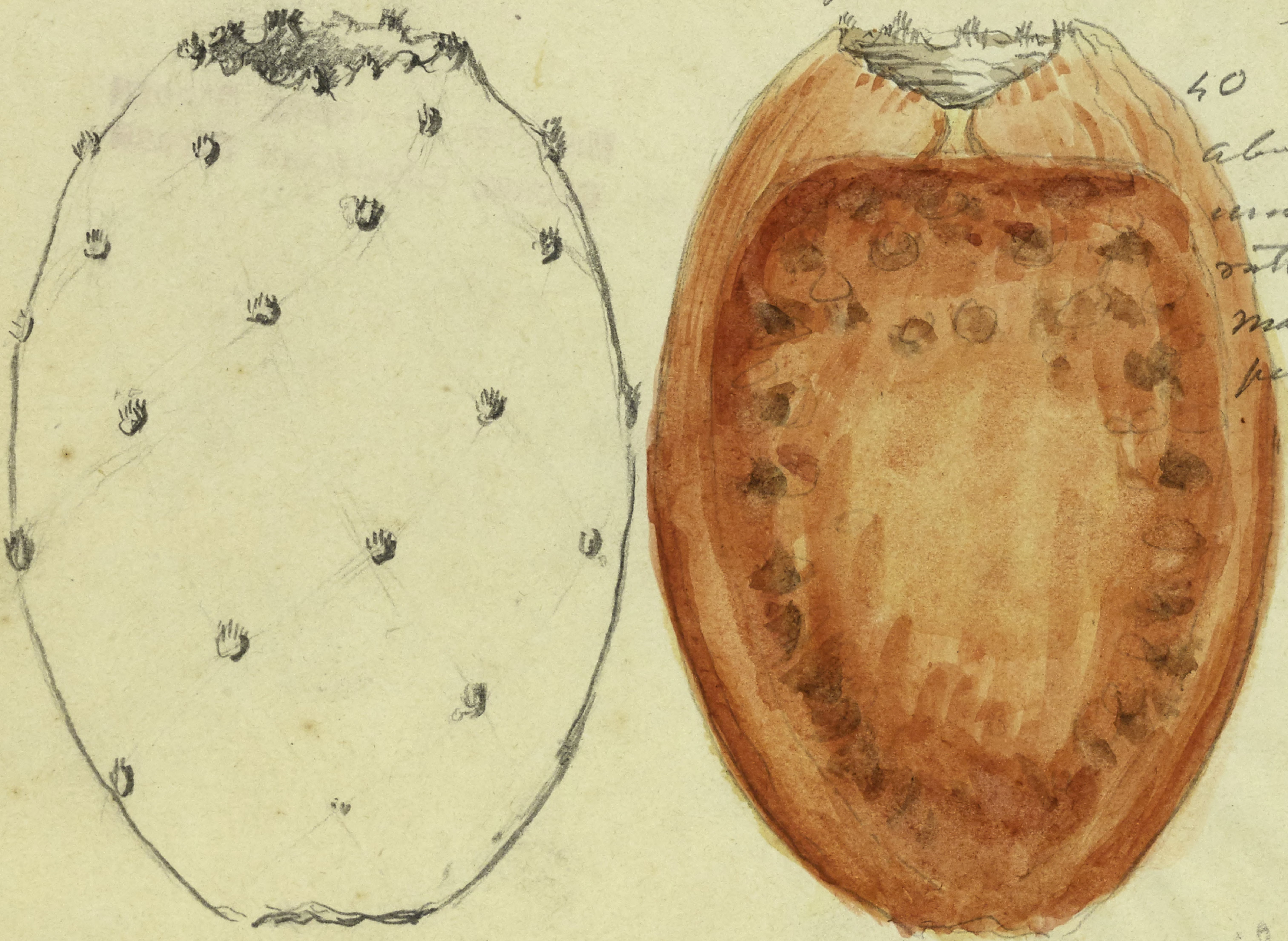
Jan 20 1868

Opuntia Decumana

Hort Bot Missouri Jan 1868
fruit of last summer –



scarlet to orange
40 areolae $\frac{8}{13}$ on fruit.
about 12 on edge
umbilicus about 8''' diam
rather shallow, strongly
marked by the scars of
petals

Pulp orange

identical with
Op. Ficus indica

0 1 2 3 4 5 6 7 8 9 10
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MISSOURI BOTANICAL GARDEN

3004

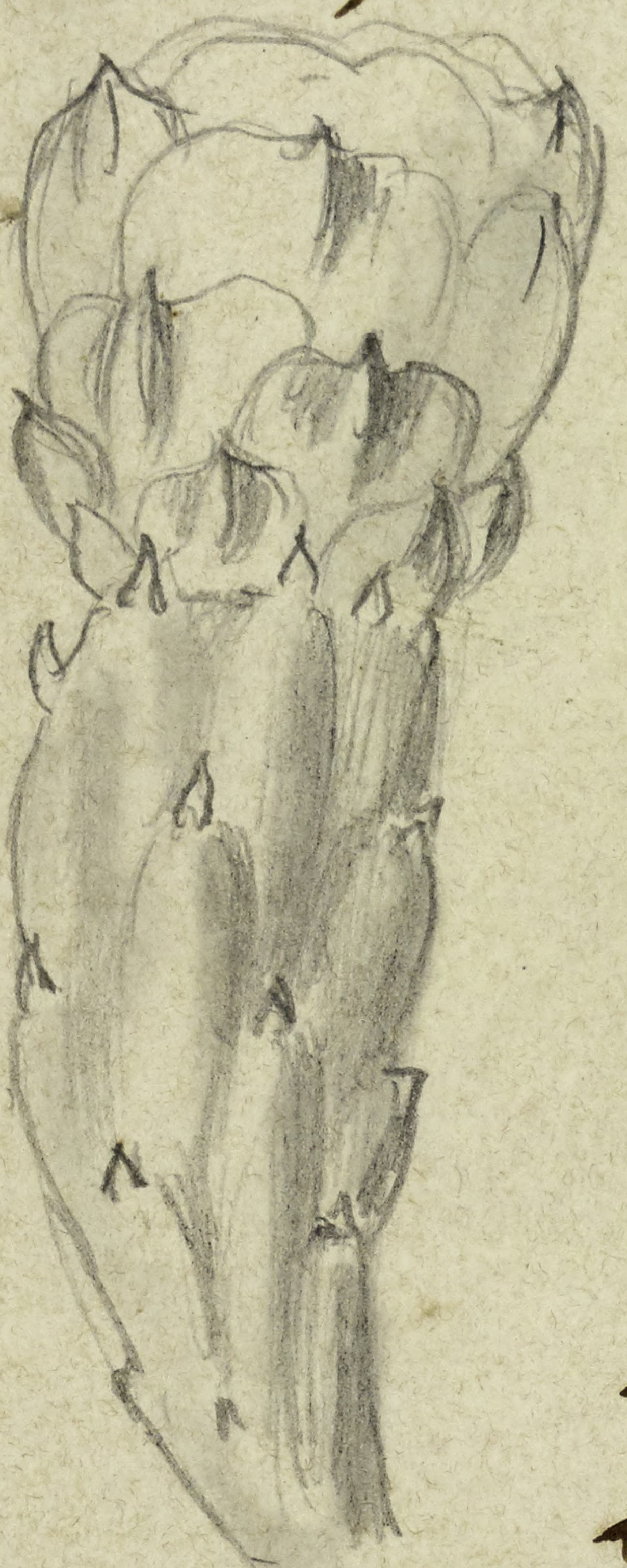
JONES & LEITCH
Druggists
Cor. Fifth & Market Sts. St. Louis, Mo.

J. McKittrick & Co. 56 N. Main St.

correct??

Opuntia monacantha Haw.

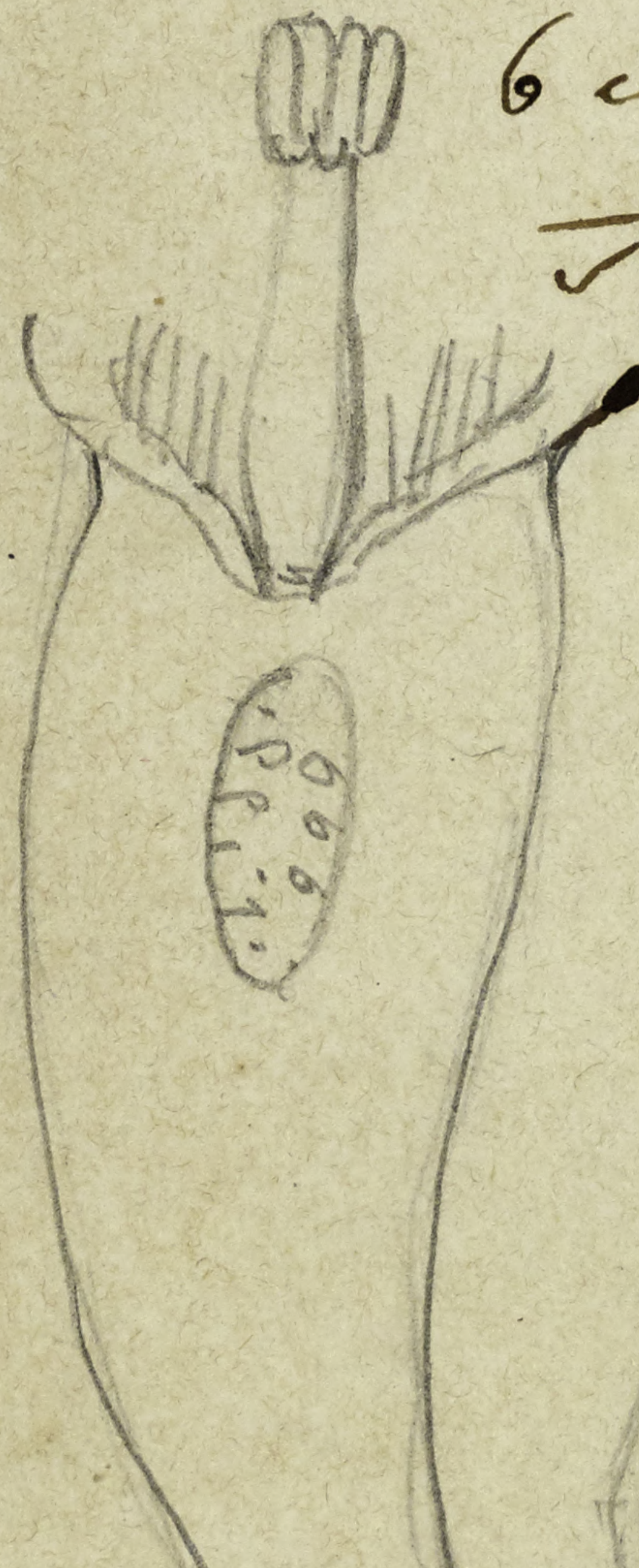
Hort Bot Missouri ex hort Salm Dyck
fl. July & Aug. 1860



Ovary 2 inches long, elongated, tuberculated, with 20 areolae and 5 to 8 on the upper margin; sepaloid leaves red, short, ovate acuminate areolae with white tomentum, few short bristles and scarcely any spines; or rarely a single erect one 2 or 3 lines long

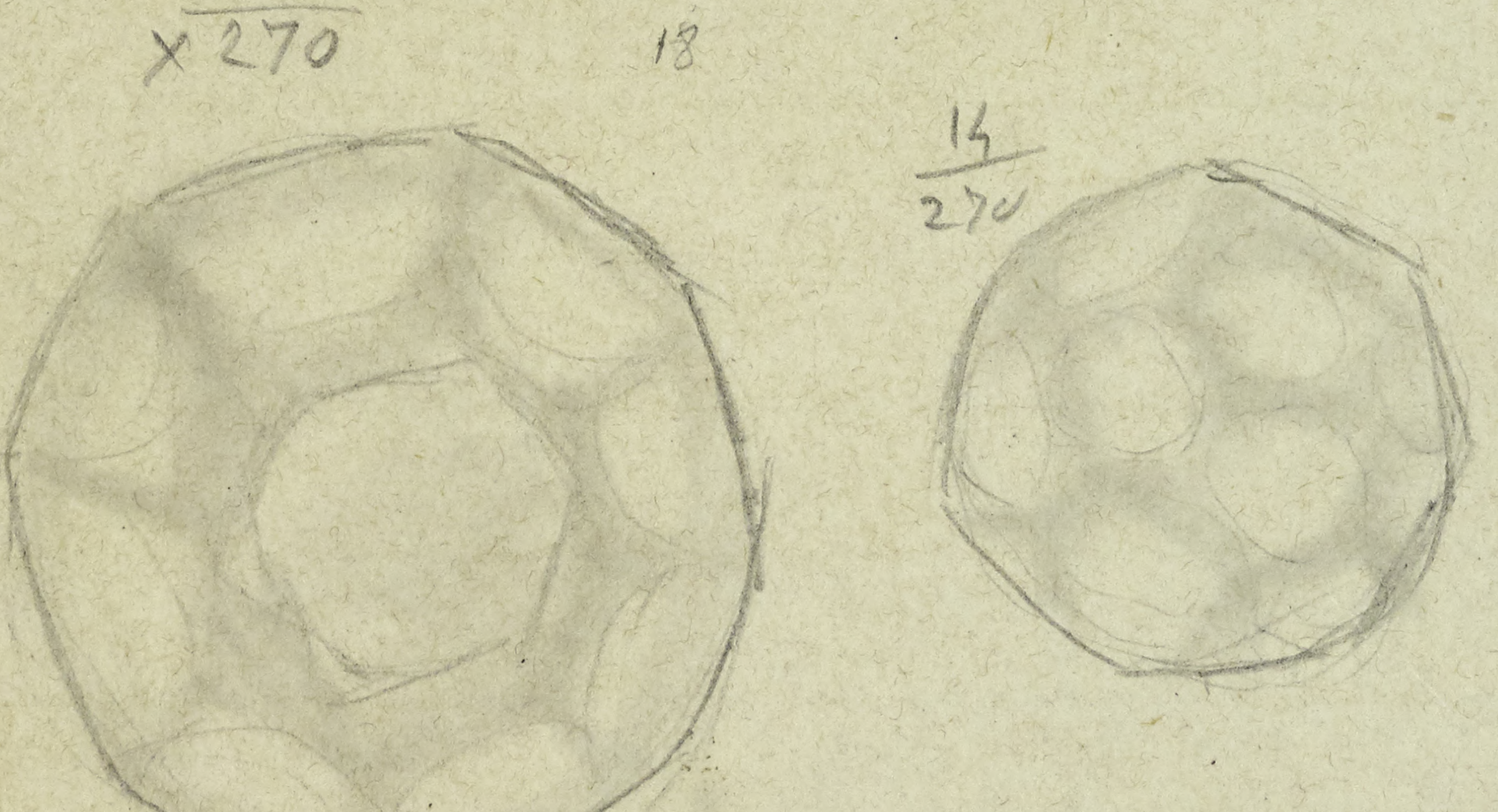
sepals on ovary 1/2 l. long and half as thick

About 15 upper sepals, broad, short fleshy, obcordate red brown, the upper ones with yellow margin, obcordate, emarginate cuspidate; flowers not more than 14–15 ~~inches~~ lines long.–



6 erect yellow stigmata 3 lines long
Style slightly ~~bulbo~~ ventricose, with stigmas 1 inch long

petal, about 5 broad short somewhat emarginate yellow



8/154 24/412
Pollen angular irregularly porotted
0.052 – 0.066, average 0.060.

3005

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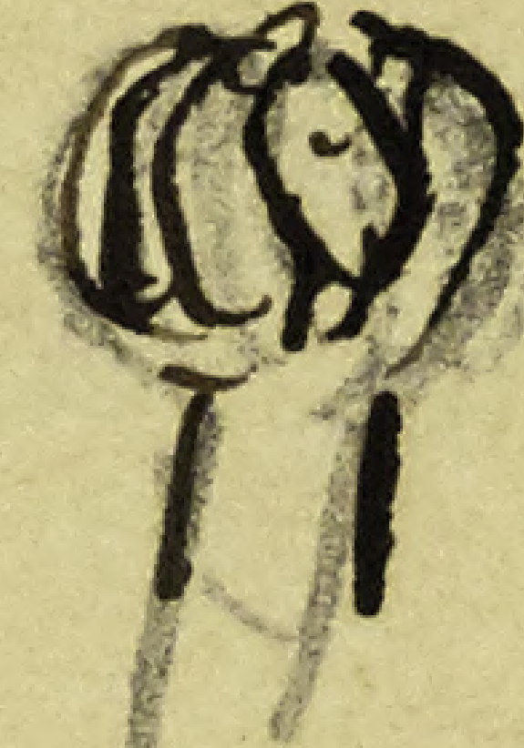
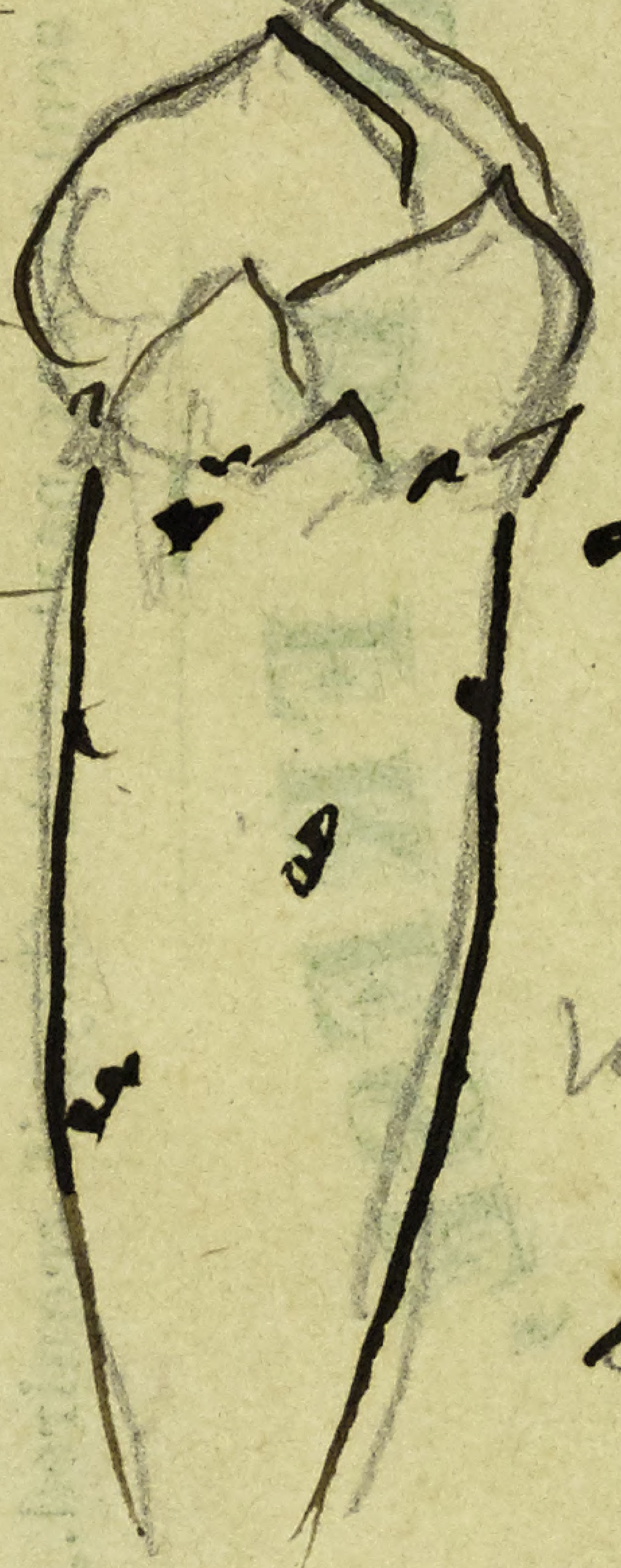
July 23' 1875 Opuntia ~~monacantha~~ elata H Bot Mo
joints long, dark green, spines almost confined to
old trunk – rarely on young joints. Ovary 2 inches
flower 3 1/2" diam 9–10 broad obovate orange
yellow, coppery petals; 8–9 green connivent

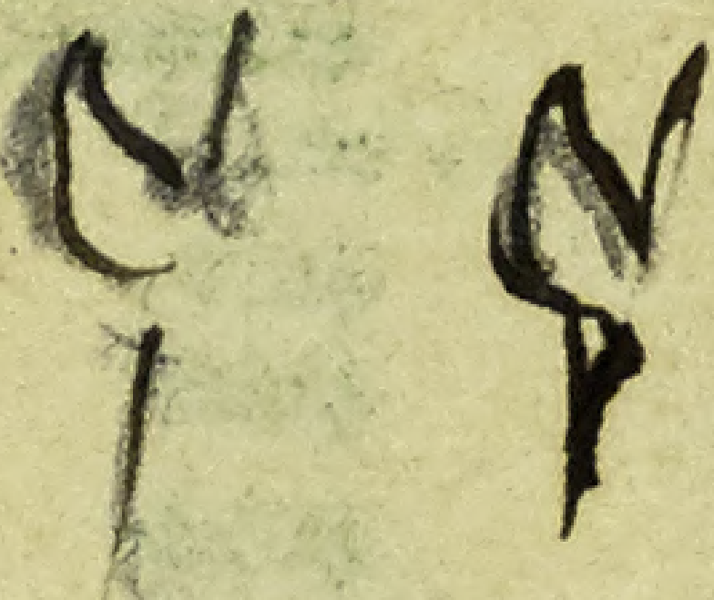


capitate stigmas

flower buds small, acute



sepals of ovary thick red
small



no divide

pulvilli

only ab 10 sepals

no leaves seen

℞

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OFFICE.—S. W. Cor. 5th & Elm
RESIDENCE.—N. W. Cor. Garrison Ave. & Locust St.

All medicine sent to any part of the City, if required.

GEO. B. FRESE,

Druggist & Pharmacist,

No. 3005 Olive Street, near Garrison Ave.,

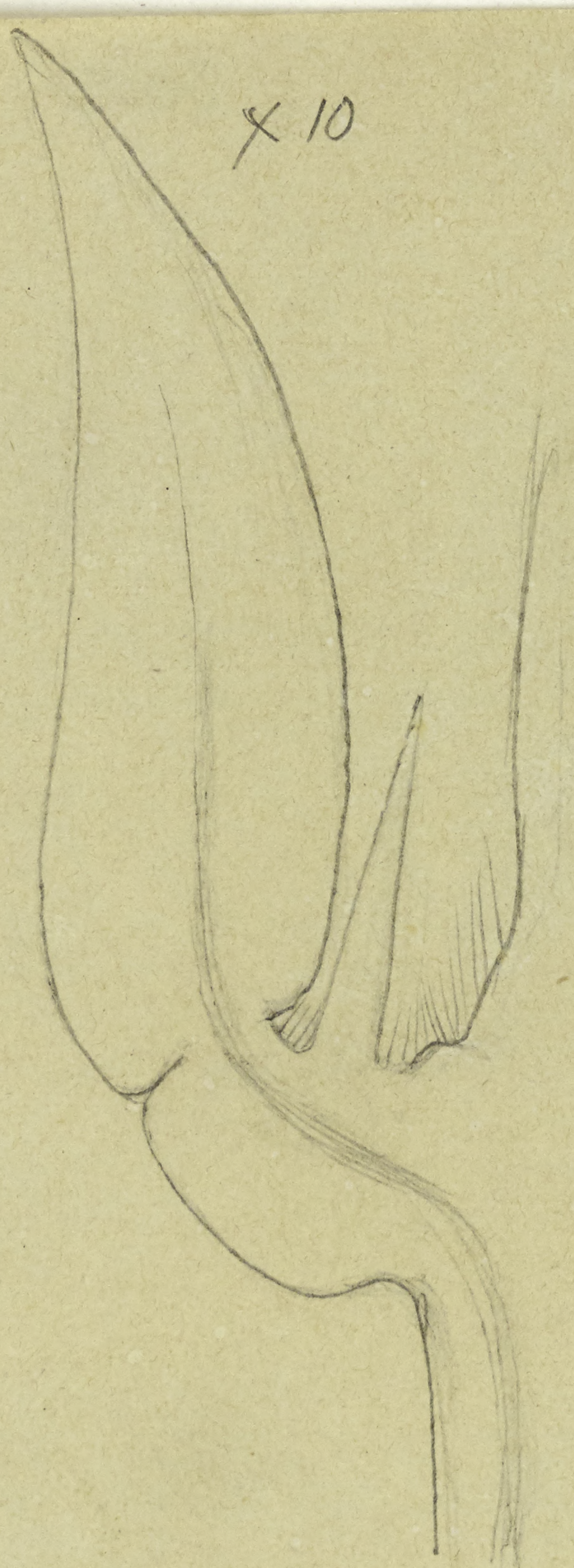
SAINT LOUIS.

3006

x 10

Op. macracantha

Aug 1860



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3007

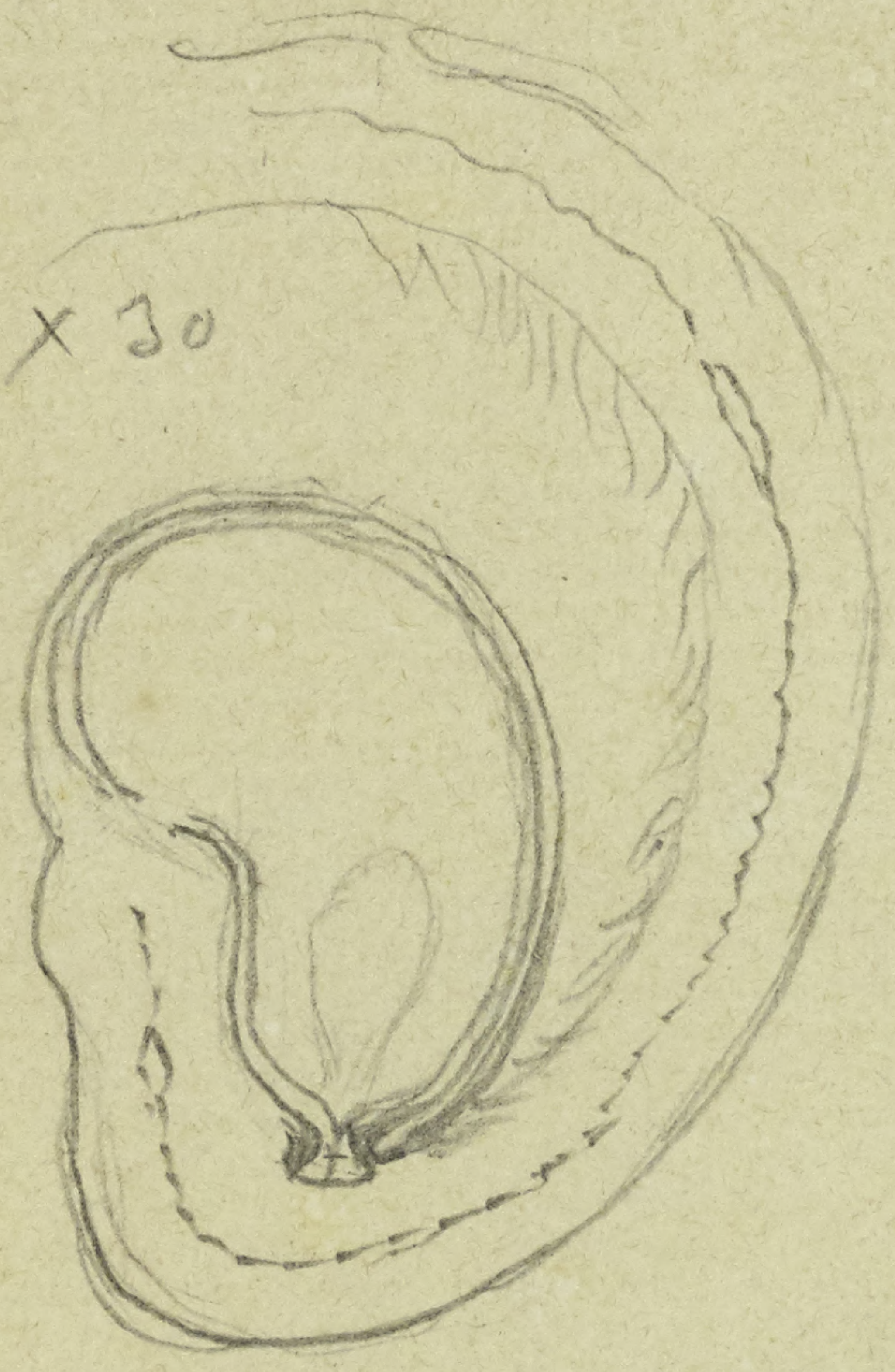
M. W. ALEXANDER,
SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,
ST. LOUIS.

Opuntia Monacantha

St Louis Aug 1860

x 30

sect. of ovulum

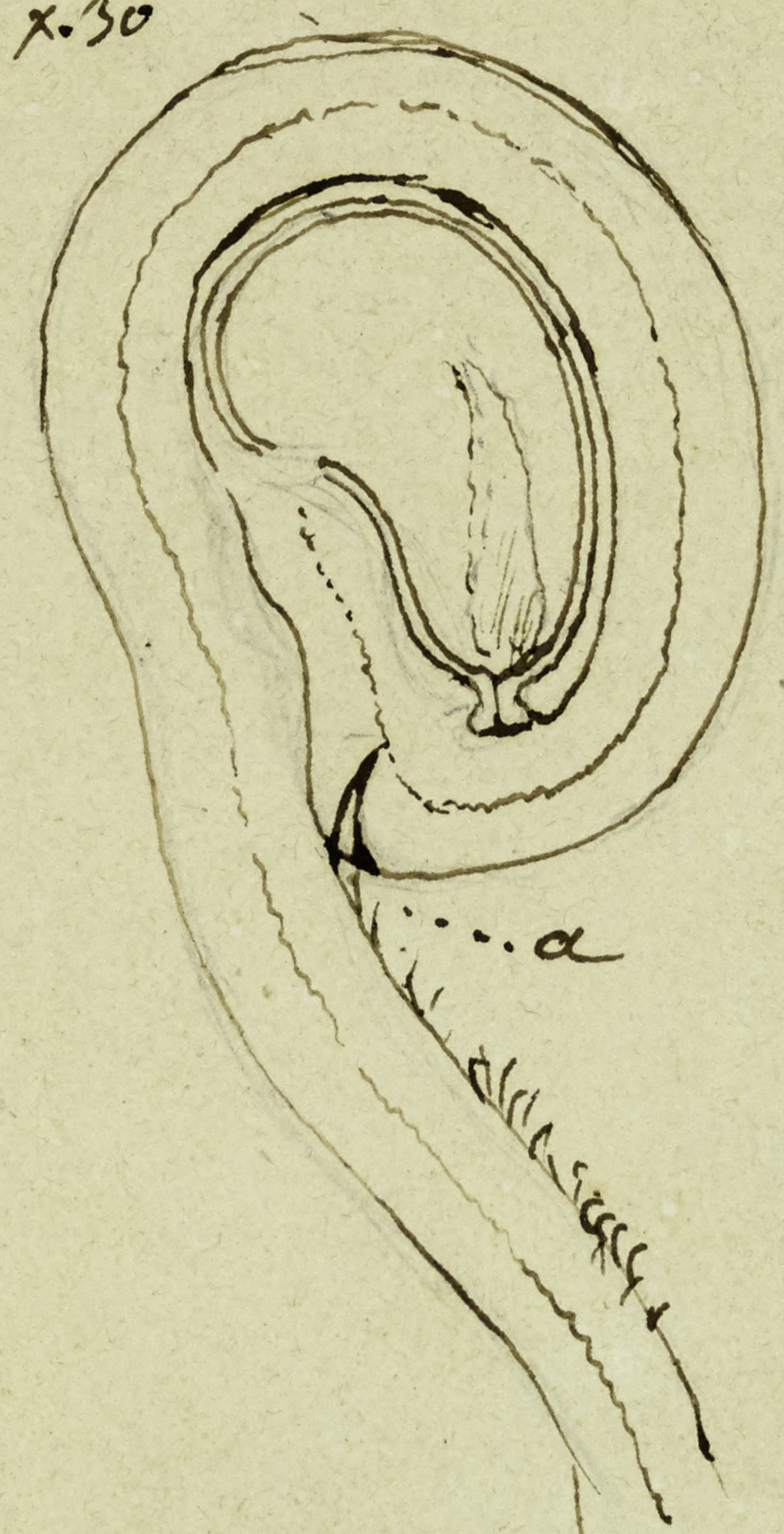


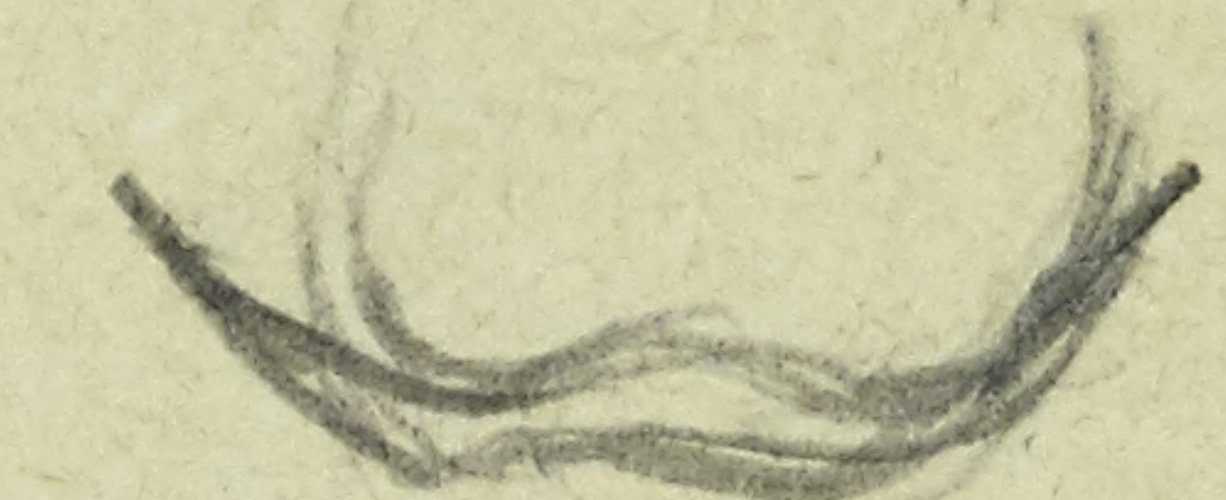
sect. of ovulum

showing the external coat has been removed and the funiculus set free

ovulum with its coats, entire prepared with caustic potash

x.30





form of the slit as seen in front through which the pollen fovilla passes to the ovule

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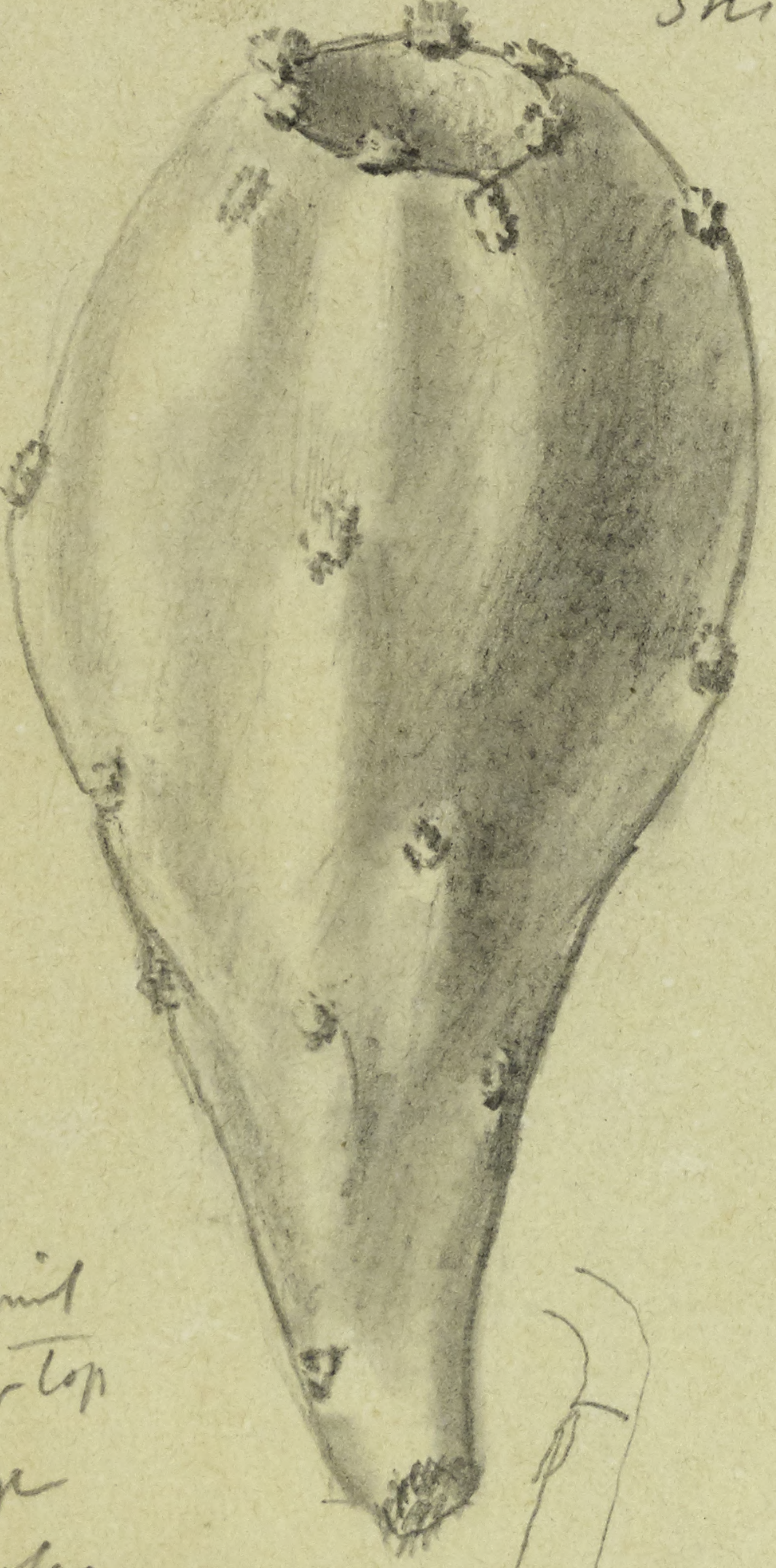
Missouri Botanical Garden

3008

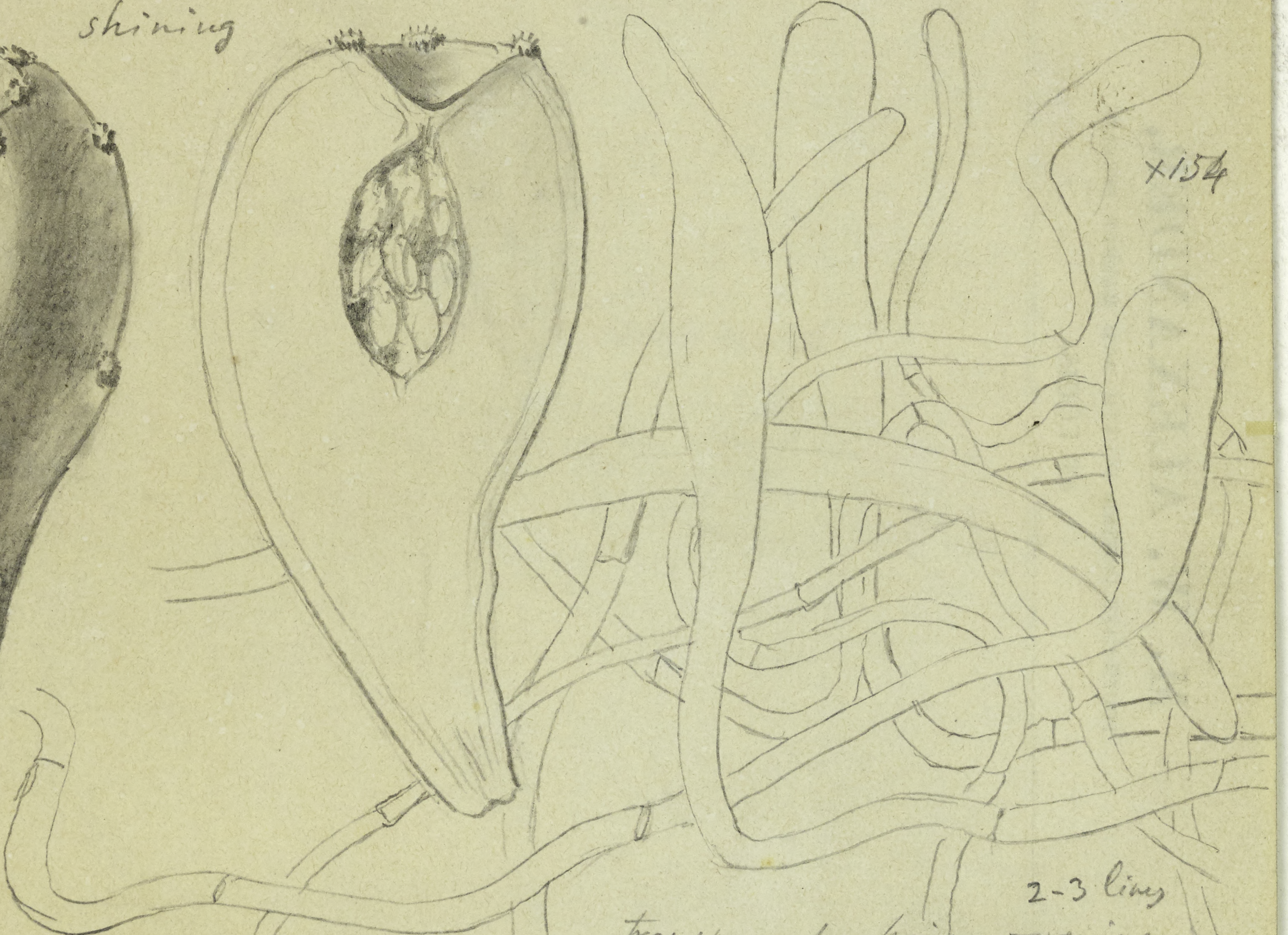
M. W. ALEXANDER,
SOUTH-EAST CORNER OF FOURTH AND MARKET STREETS,
ST. LOUIS.

Opuntia monacantha. Sept 25 1861
Hort Bot missouri

fruit unripe deep green
shining



16 on fruit
3 near top
5 on edge
24 areolae



2-3 lines

transparent hair covering
the unripe seed ,4-7 mm long

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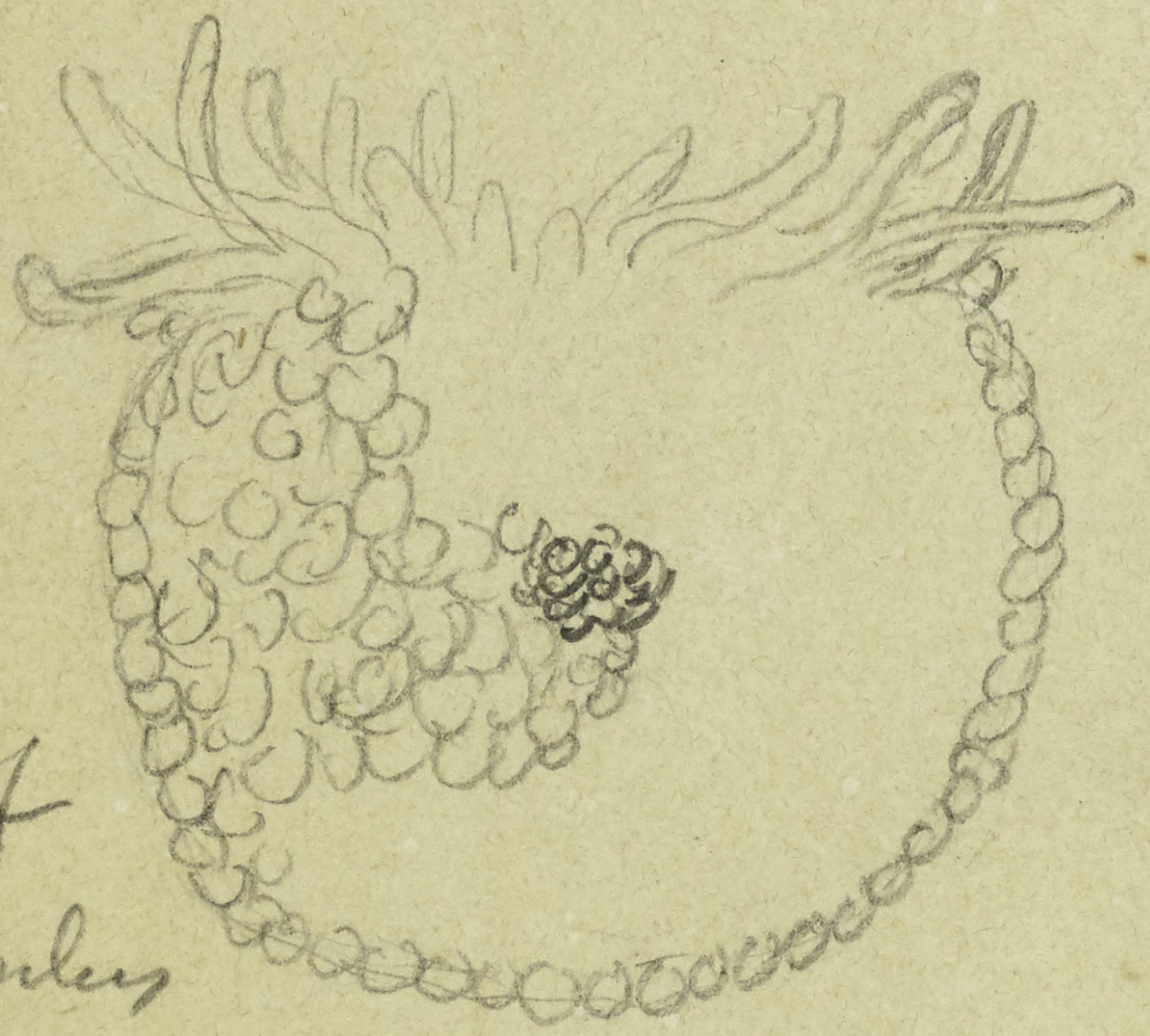
3009

M. W. ALEXANDER,
SOUTH-EAST CORNER FOURTH AND MARKET STREETS,
ST. LOUIS.

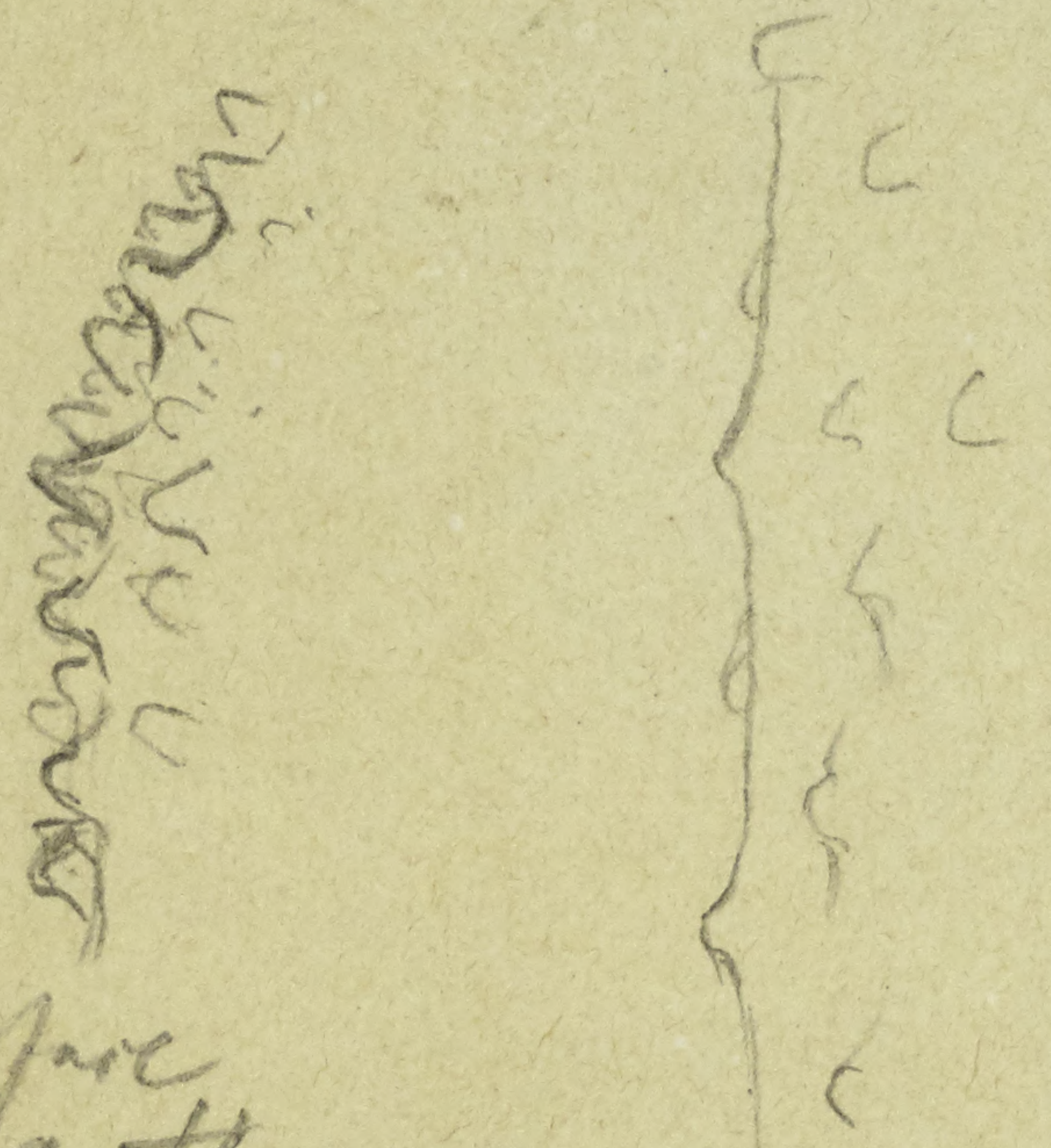
Opuntia monacantha Sept 27. 61

x60

Sect of funiculus



x60



Surface of anther & filament

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3010

M. W. ALEXANDER,
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ST. LOUIS.

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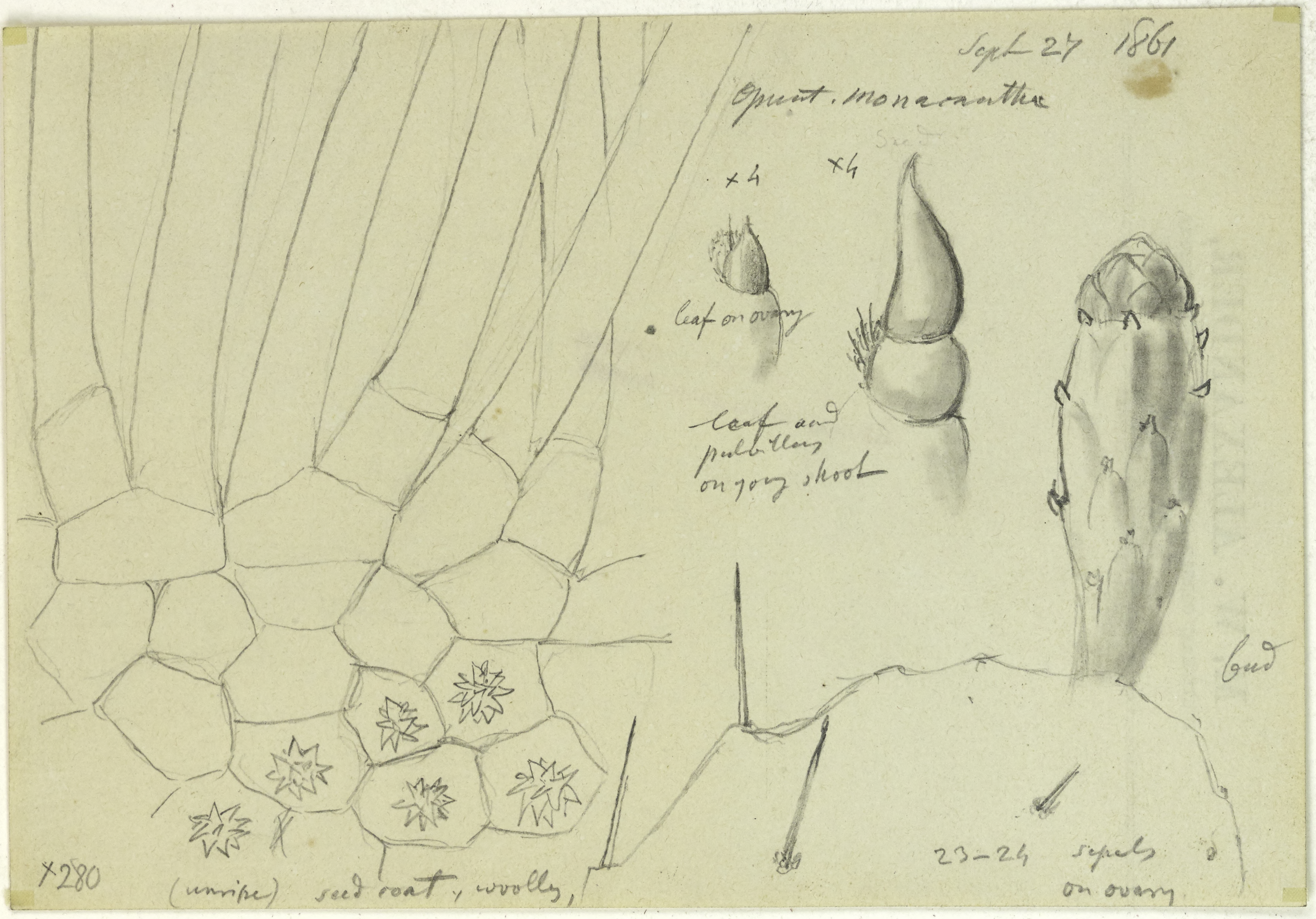
Sept 27 1861

Opunt. monacantha


Seed
×4
×4
leaf on ovary
leaf and pulvillus on young shoot
bud
23–24 sepals on ovary
×280
(unripe) seed coat, woolly,

29-24

3011

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ST. LOUIS.

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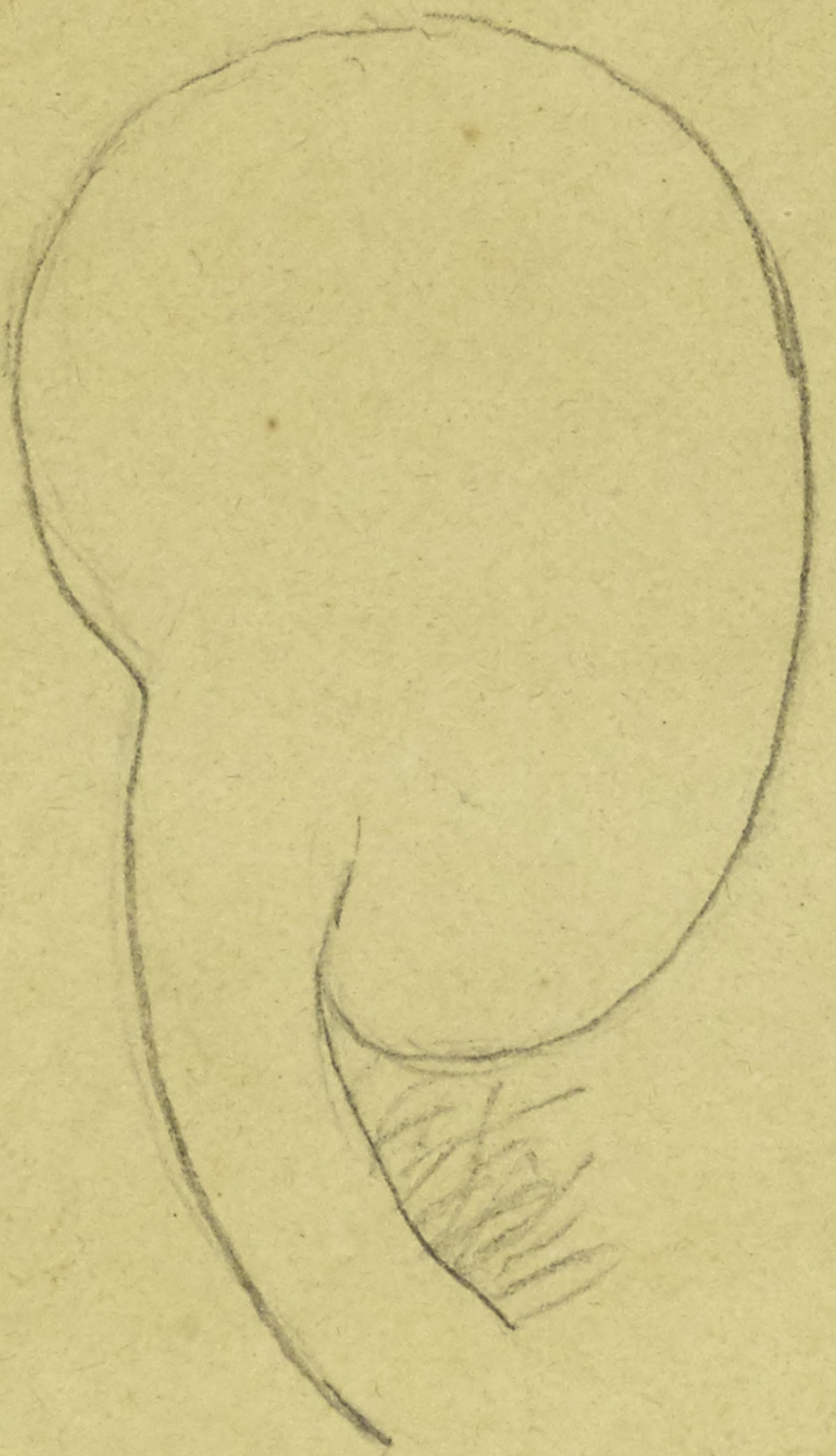
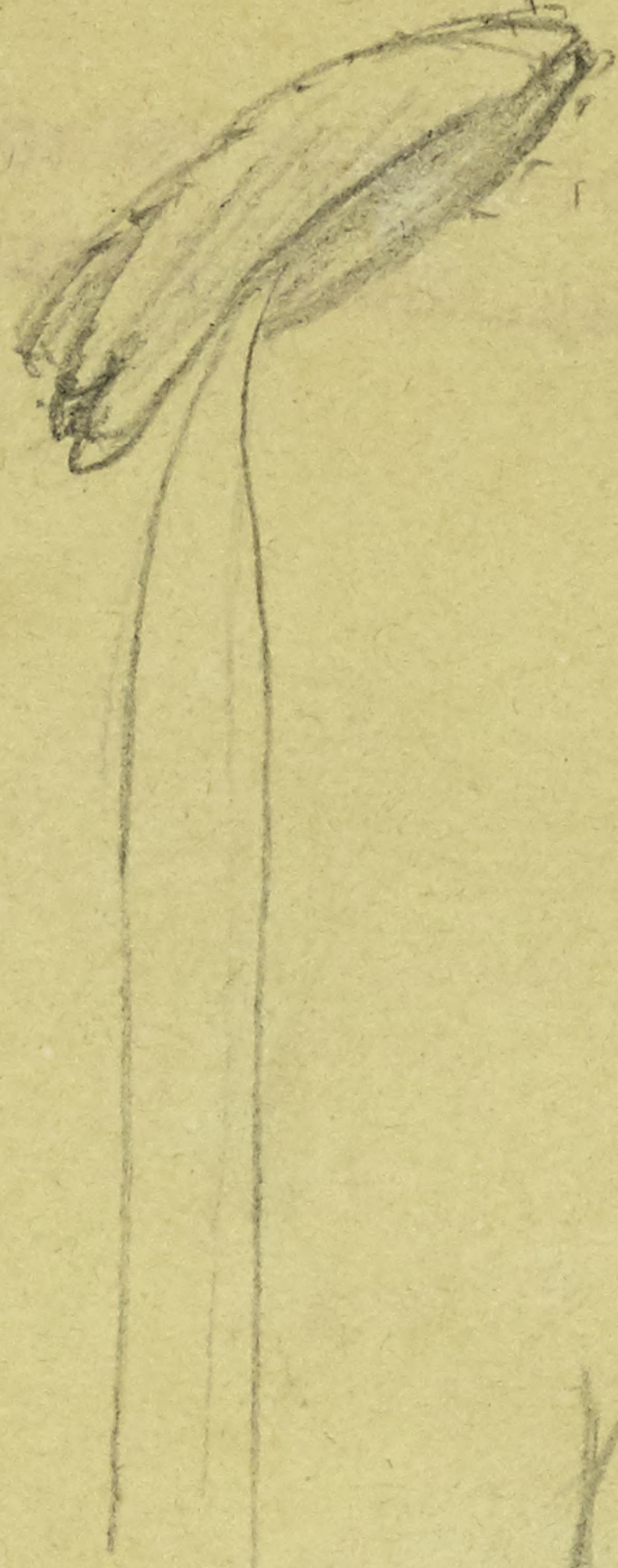
Opunt. - monacantha July 12 1865

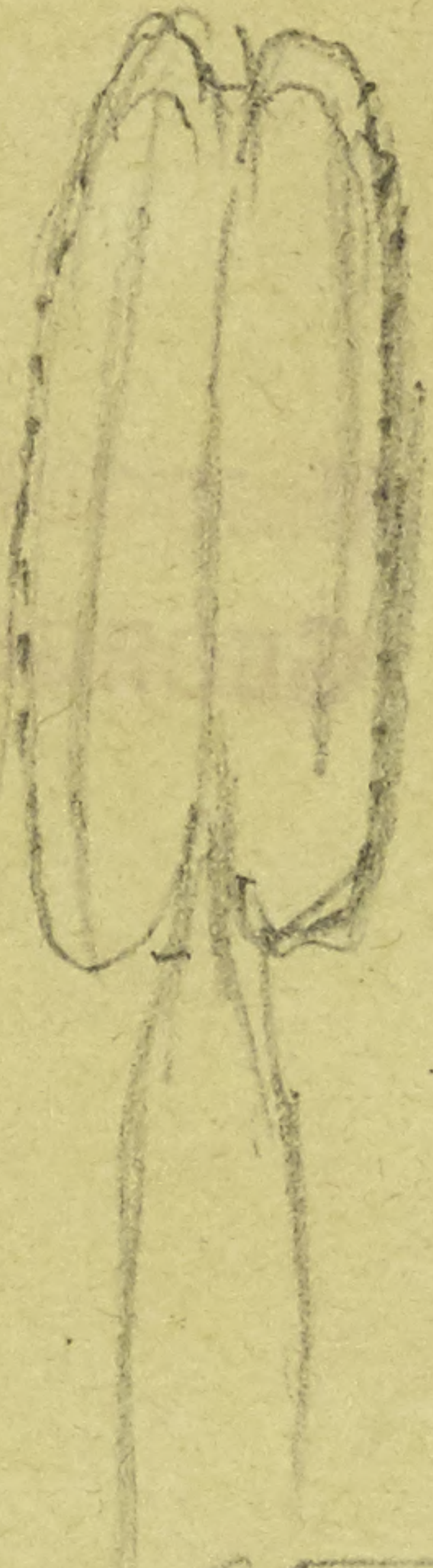
x30

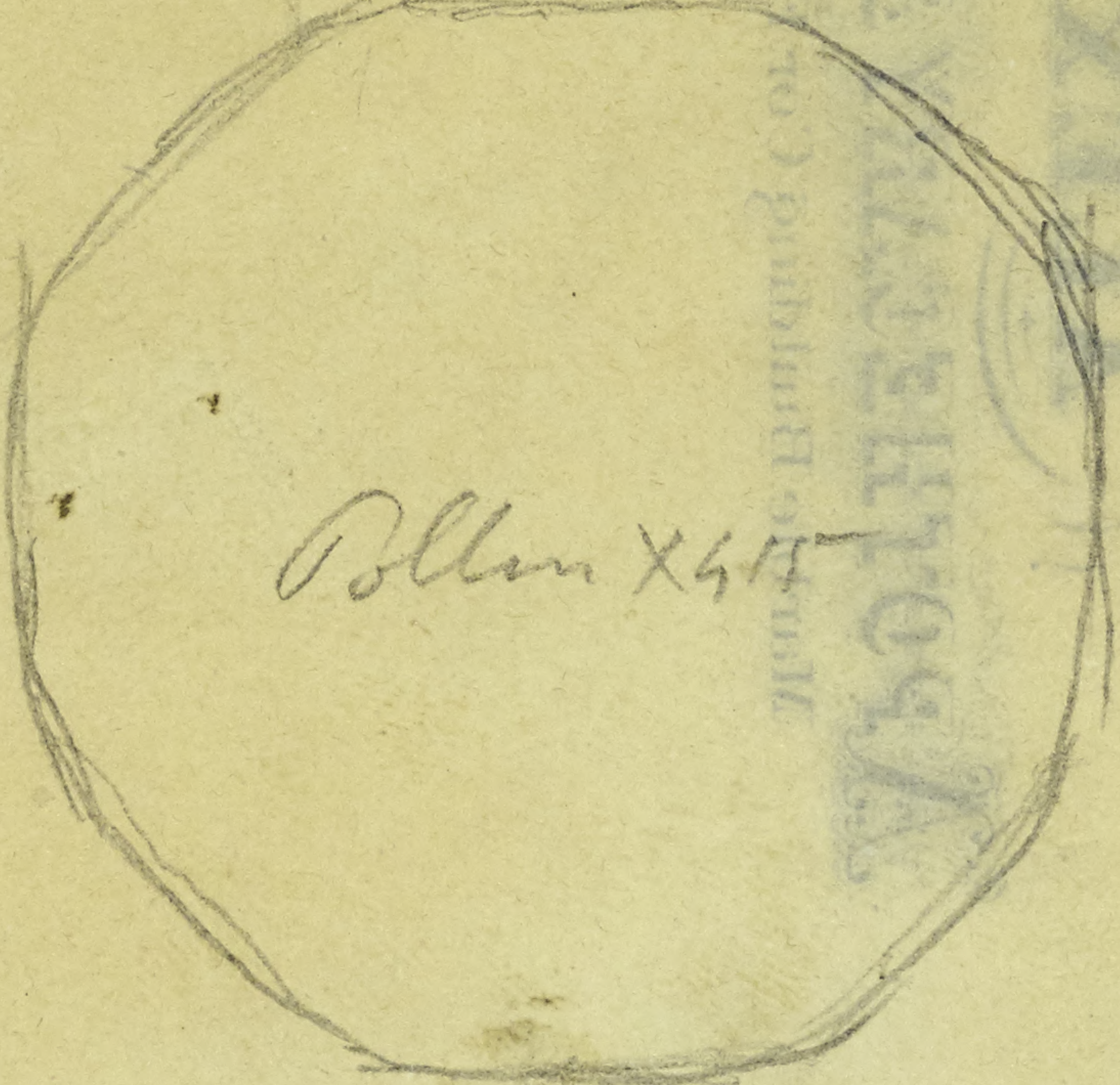


x10

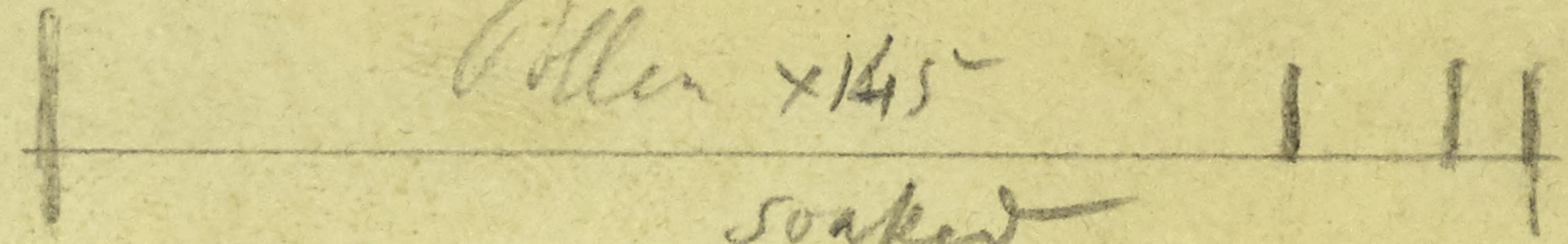


filam. smooth
anther papillose





Pollen x415



Pollen x145
soaked

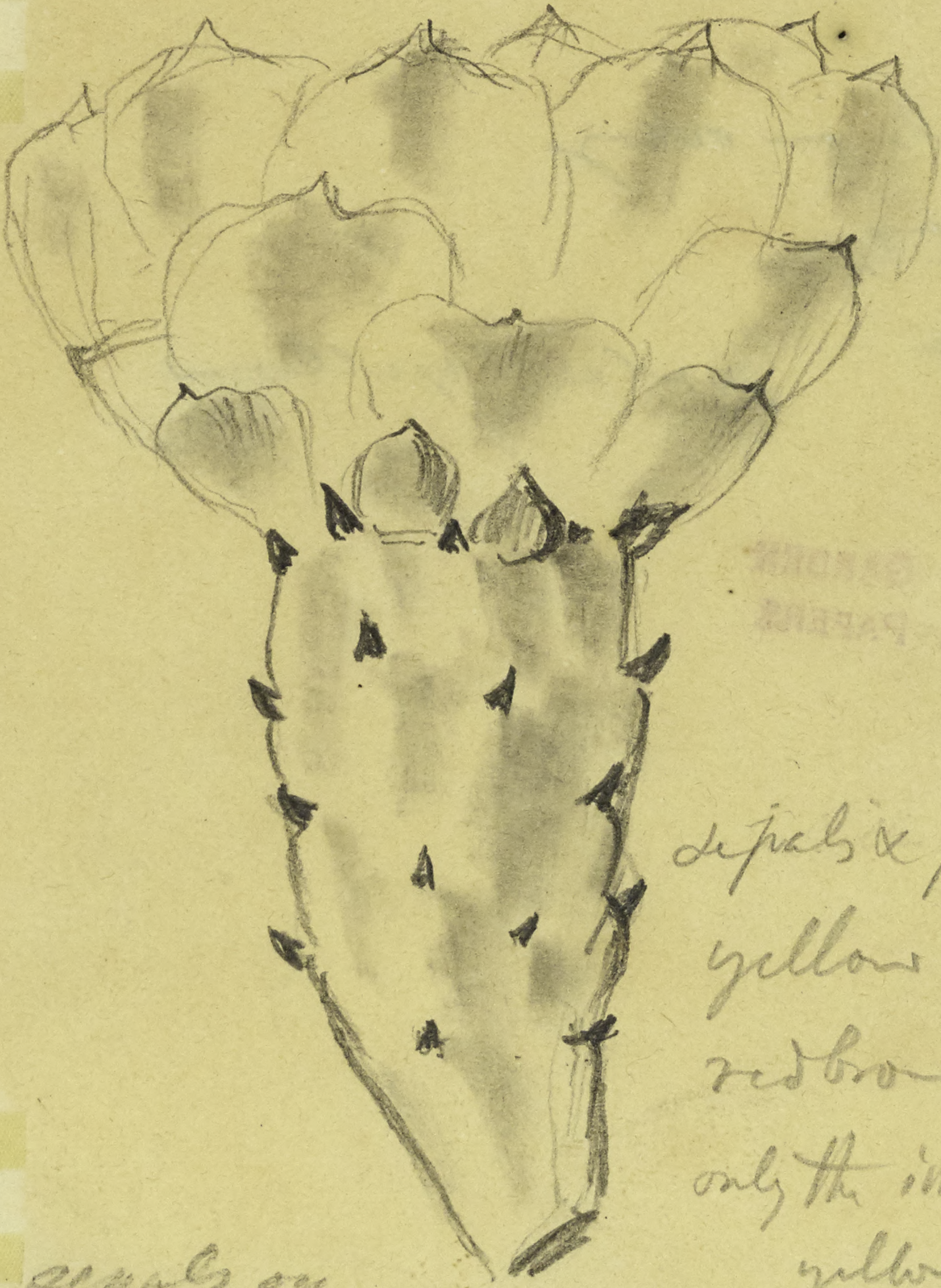
0.057 - 0.066

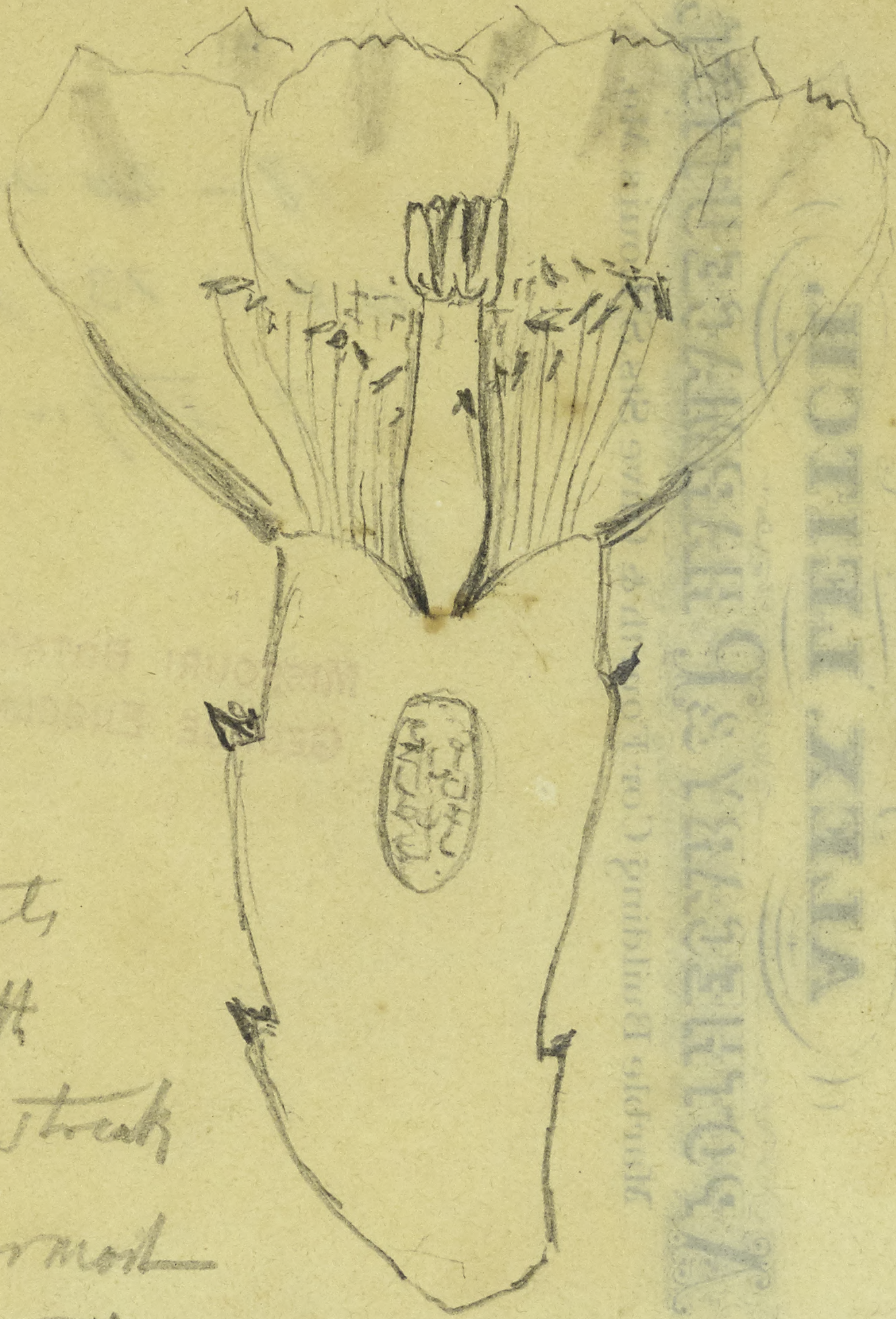
3012

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

Opuntia mesacantha
HoB Missouri

July 12 1865





sepals & petals
yellow with
redbrown streak
only the innermost
yellow entirely

sepals on
ovary $\frac{5}{13}$

18–20

ALEX. LEITCH,
APOTHECARY & PHARMACEUTIST,
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

18 – 20 sepals on ovary
abt 13 petals
7 Stigmat pale yellow

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Sept 1860

?
Opuntia monacantha Haw. Pfeiff 164

Hort bot Missouri, sub nom. „O. monacantha" ex Hort Dyck erecto-patula 4-5 pedalis; articuli oblongo-obovati pedales 4-5" lati, perviridis, tuberculati, demum fere planae
folia 3 lin longa crassa, acuminata, suberecta.
areolae remotae orbiculatae parvae tomento brevi setisque paucis mox evanidis ~~stipatae~~, fere omnes armatae; articuli pauci hinc inde inermes; aculei singuli v. saepissime bini in senioribus ~~terni~~ terni, albidi ~~superne~~ cinerei, apice obscuri, subteretes, superior major 1-1/2 pollicaris, porrectus s. suberectus, inferiores breviores vix pollicares minores plerumque deflexi;

~~Flos~~ 2- ~~2½~~ ~~pollicaris~~, ovarium e clavato cylindricum 2 pollicare tuberculatum, areolis 20-24 stipatum, sepalis brevissimis crassis (1½ lin. longis) acutis obsitum, sepala superiora (s. tubi) sub 15, transversis brevibus ~~carnosis~~, obovatis cuspidatis carnosis, (fuscatis); petala sub 5 transversa lata vix emarginata, sulphurea

stigmata 6 erecta sulphurea, 3 lin longa.

Bacca pyriformis, magna, tuberculato-angulata, umbilico parvo, profunde infundibuliformi – semina (immatura) villoso-comosa. bacca 3 poll longa 1½ lata, umbilicus vix ¾" lat.

Pfeiff. p. 164 says „aculeus brunneus apice flavidus" – otherwise his description agrees pretty well; of the flower however he says: ovary 1¼" long, 1" lat, flower 3" in diameter – which does not correspond with our plant. –

Weddell's figure 34 from Brasilia is identical with our plant.

over

3014

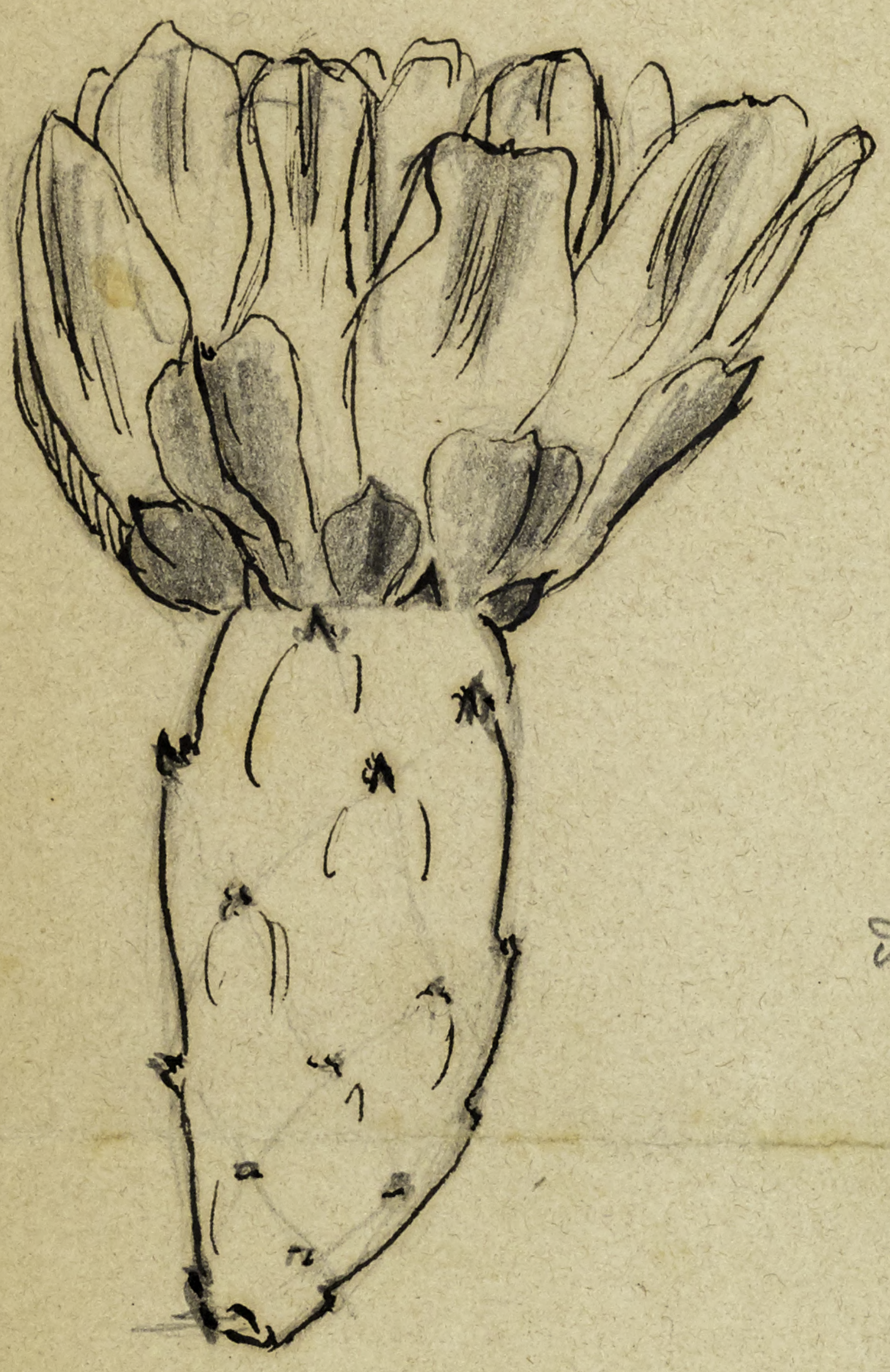
My notes made Jan 11th 1857 in Hort Dyck indicate a very different plant; the flower is different, sepals longer and not as broad and fruit plump and almost globular, see notes.

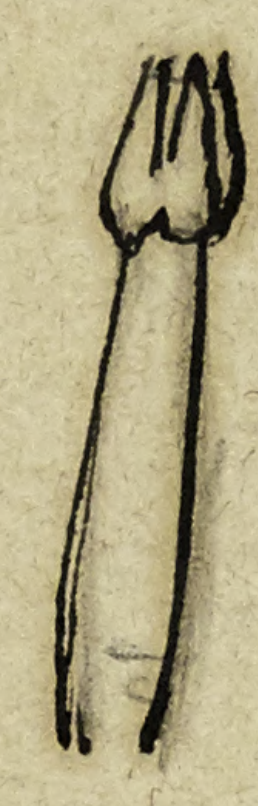
The plant taken in Rom, April 9th 1858 for Monacantha, seems different again; fruit plump but ~~clavate~~ elongated, with small flat umbilicus — see drawing.

Notes made in looking through Prince Salm's Collection of Cactaceae Jan. 1857

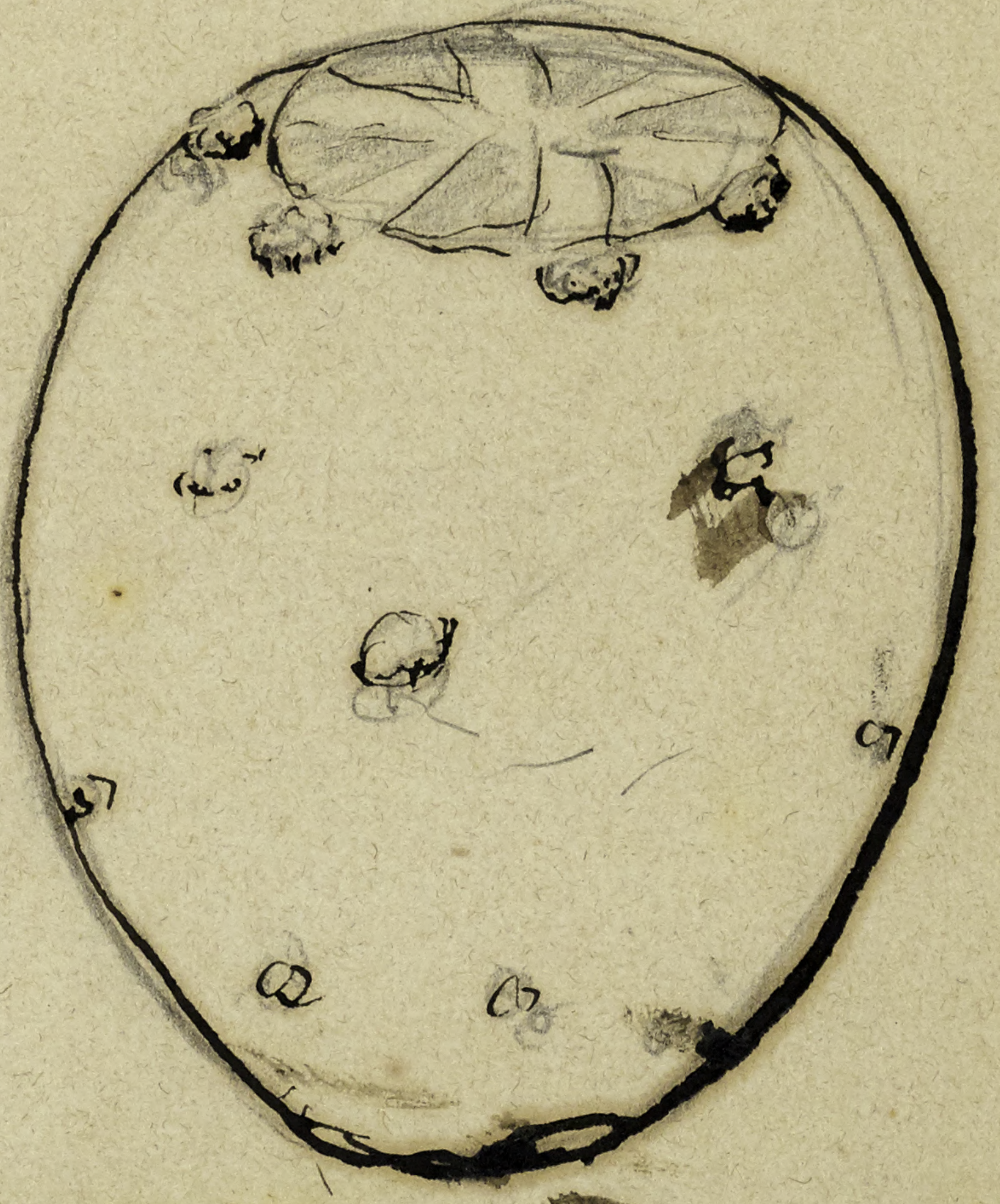
Haw. see Pfeiff. p. 164

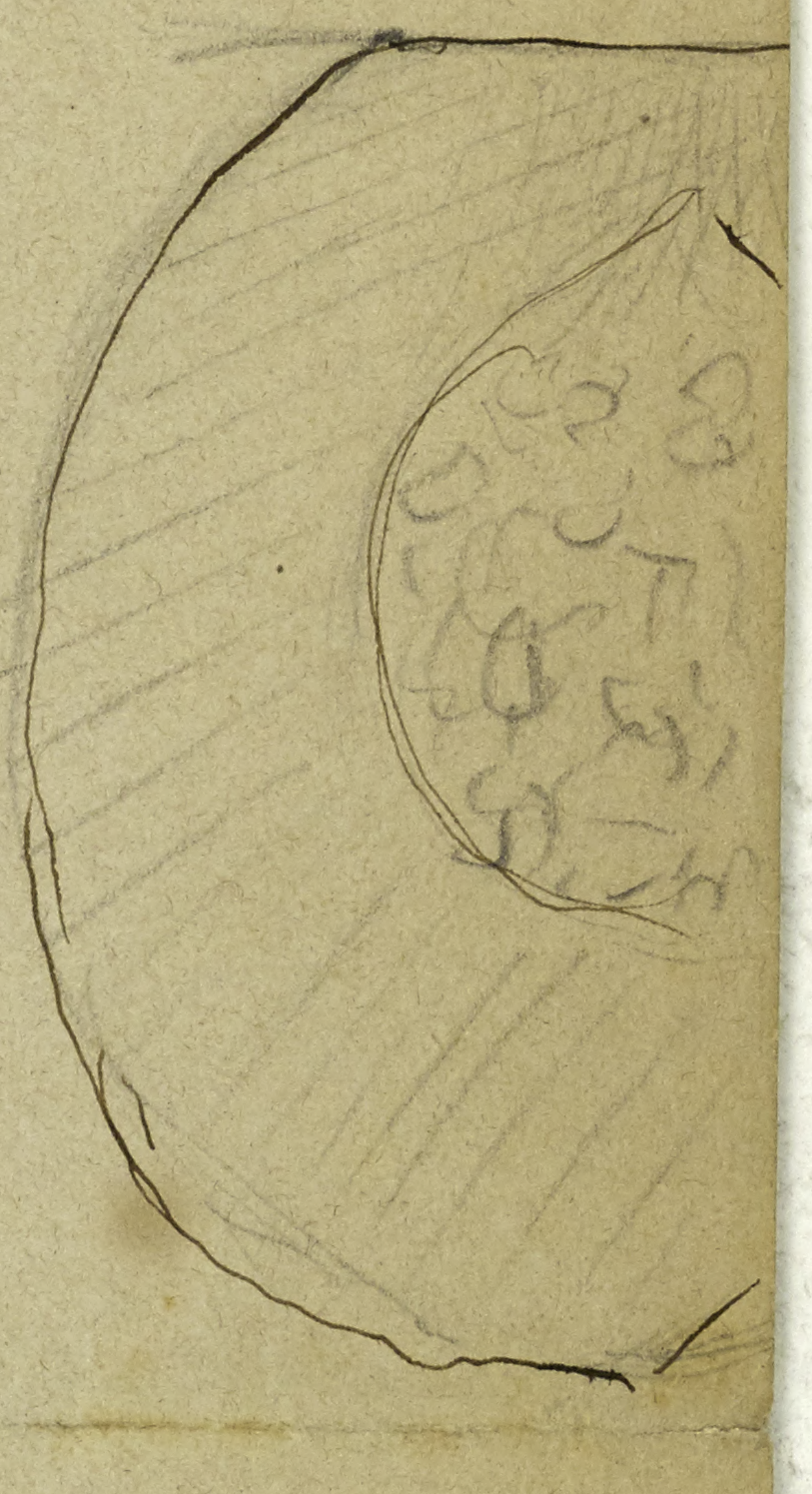
Opuntia monacantha A well characterized species; large and erect, but often with more than one spine. I find some flowers today, Jan. 11th, many unripe fruit which are about 8 or 9 months old, and one almost ripe, which, I am told, is nearly 2 years old.





depauperate?





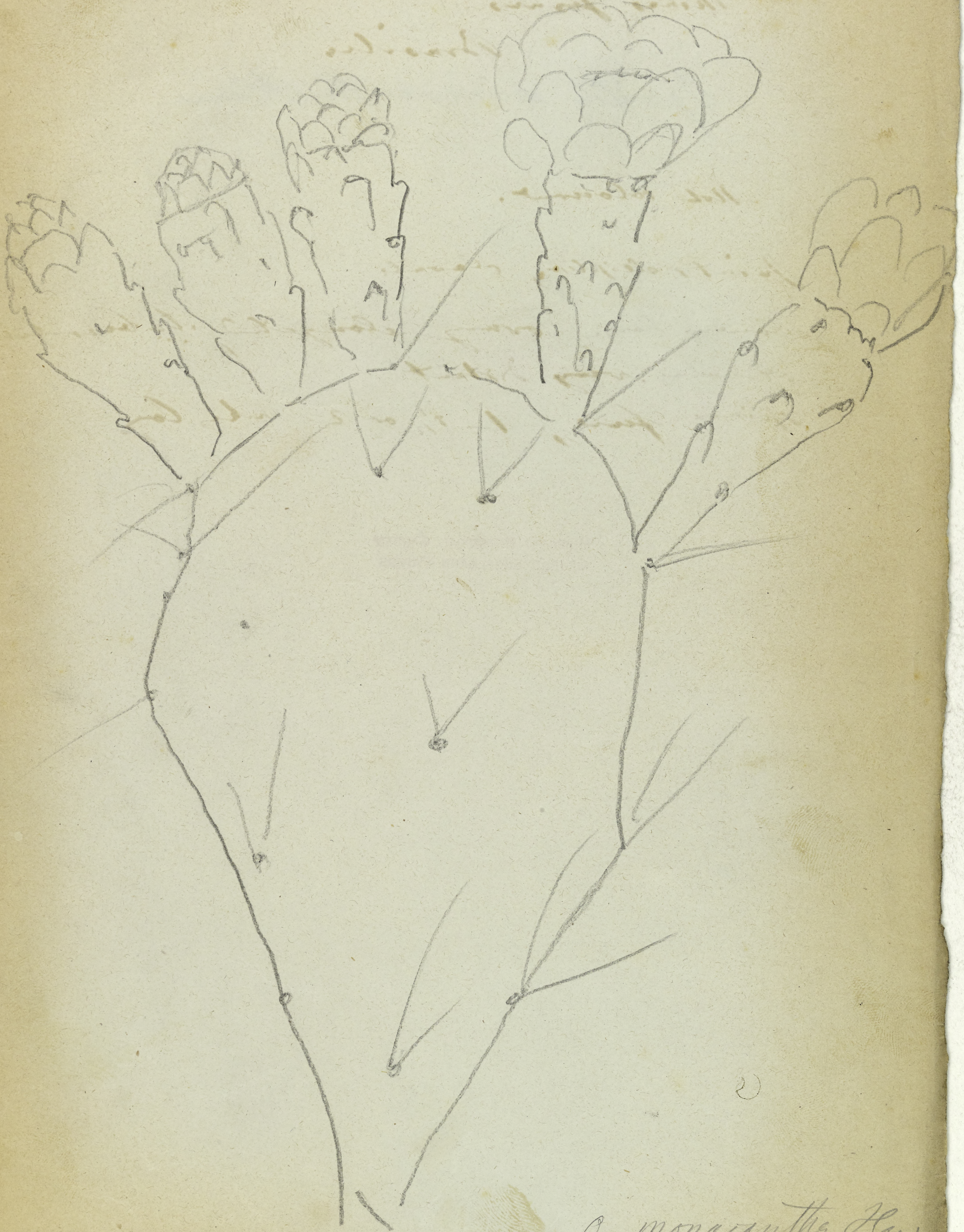
22-25 areolae on ovary; ovary obovate clavate, laete virens; folia brevissima rubella; sepala tubi obovata cuspidata; ~~obtusa~~ rubra; 10-12 petala totidem, oblonga obtusa; flava, apice rubella. — stigmata 5 amarantacea, erecta acuta; stylus albidus vix inflatus (depauperate ??)

Bacca subglobosa, umbilico plano, crassa carnosa. — 2½" long 2" in diameter.

Semina plurima parva

3015

№ 34



O. monacantha Haw.

at least of Hort bot Missou

34

3016

Minas Geraes

Brasilia

Opuntia monacantha Haw.

Not coloured!

Joints elliptic, clavate

flowers large, ovary elongated, tuberculate

Areolae very distant

spines few, 1-1½ or 2 inches long

0 1 2 3 4 5 6 7 8 9 10
cm
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